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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,214	09/08/2003	William S. Lerner		2711

7590

09/20/2004

Steven Horowitz  
Counselor At Law  
Suite 700  
295 Madison Avenue  
New York, NY 10017

EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/658,214

Applicant(s)

LERNER, WILLIAM S.

Examiner

Sang Y Paik

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balderson (US 4,983,810) in view of Huesslein et al (US 5,448,036) or Plumptre (US 5,750,959).

Balderson shows a heating stove top with a smooth glass ceramic surface with a heating element surrounded by the ceramic surface, a thermochromic composition ink that is silk screen printed on a glass ceramic surface and dried to form a solid state on the surface. The thermochromic composition undergoes the color change according to the heating temperature of the surface. Balderson also shows that the composition can withstand temperature high temperature including the claimed temperature range. However, Balderson does not show that the thermochromic composition is applied in the form of a ring element or other recited various forms and shapes.

Huesslein et al and Plumptre show a stove cooktop with a warning symbol in the form of a ring element to indicate that the heating surface is hot to touch. In view of Huesslein et al or Plumptre, it would have been obvious to one of ordinary skill in the art to adapt Balderson with the thermochromic composition take a form of a ring element or any other shapes or indicia to create an more aesthetically appealing and cost effective forms including the recited forms and shapes.

Art Unit: 3742

With respect to the plurality of heating elements, Balderson does not explicitly show such plurality, but it is well known in the art such a cooktop or cooker hops contain a plurality of heating elements.

With respect to claims 2, 16, and 30, Balderson also teaches that the thermochromic composition can be provided in various colors, and Balderson desires to create color contrast as the composition becomes responsive to the hot temperature. Thus, it would have been obvious to one of ordinary skill in the art to provide the composition sufficient similar to the background color of the surface and as it becomes hot, it would shows more contrasting colors to more effectively indicate the hot heating surface.

With respect to claims 3, 7, 9, 13, 17, 21, 23, and 27, it would also have been obvious to provide the thermochromic composition at the claimed distance or any other suitable distance as long as the thermochromic composition can effectively be thermally responsive to the heating surface to indicate the hot surface condition to forewarn the user.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y Paik whose telephone number is 703-308-1147. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Y. Paik

Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp